

## **Integrated Automated Statistical Information System in the Slovak Republic**

Integrated Automated Statistical Information System (ASIS) consists of four basic interconnected subsystems: metadata subsystem (METIS), register subsystem (REGIS), data collection subsystem (ZBER) and source database subsystem (DS). It is the technical support of statistical processes starting from survey projecting, data collection, data treatment, micro data saving up to publication of data.

**Metadata subsystem (METIS)** represents the large database of meta information, of which the most important concern the classification system, variables, description of questionnaires, modules as a part of questionnaires, indicator items as a part of modules.

METIS has links:

- to the subsystem of register through classifications and register identification,
- to the subsystem of database through the classifications, catalogues of indicators and indicator items, parametric determination of reporting units and checks,
- to the subsystem of data collection and data treatment through the catalogues of questionnaires, modules, indicator items parametric determination of reporting units and checks.

**Register subsystem (REGIS)** consists of the Register of organisations (RO) and Register of establishments (RZ). Both registers are conducted centrally at the SO SR and updated through its regional offices on monthly basis. The Register of Statistical Units (RSU) is the file derived from RO and RZ for the purpose of statistical survey. It comprises identification data and basic characteristics of legal units, individual entrepreneurs and establishments that are used for formation of reporting unit's files by various criteria (parametrical selection program application).

Sources of statistical register updating are mainly the Register of Companies in the responsibility of Ministry of Justice (profit oriented organisations, legal unit type) and Trades Register in the responsibility of Ministry of Interior (entrepreneurs, natural person type).

RSU is updated on the monthly basis by taking over the chosen data from the above-mentioned sources. Enrolment of all the non-profit-oriented organisations (legal unit type) and of some groups of physical persons (self-employed farmers, liberal professions, etc.) is carried out by the regional bodies of SO SR that immediately inserts the records into RSU.

**Data collection subsystem (ZBER)** - new system developed by our office **DC2000** was implemented for statistical surveys starting the year 2001 year. It is the program product of database-oriented type.

The data entry, data completeness and statistical control are organised by specialised regional offices of the SO SR. It has been distinguished between general checks at decentralised (regional) level and general checks at centralised (republic) level. In the frame of these general checks there was organised control of the response, permission of classification codes, of the surveyed period, duplicities of the enterprise codes.

Applications software for data processing (data recording, data editing and input data correction) up to year 1999 has character of tailor made program. Out of this program there existed another special program for record keeping and evaluation of reporting duty the result of which was the data on systematic variable HODNOT used for the unit non-response rate calculation.

Starting 2000 the situation concerning data processing is changed by following way:

- 1/ formal checks, which are realised in the process of data entry automatically;
- 2/ informal checks aim of which is to control the complexity and relations among the variables

According to the importance there are classified 4 basic types of informal checks: informative check (I), non-response (N), anomaly (A) and check of great importance (Z) Informative check (I) gives the additional information, which is important for the following process of corrections. It informs also about some inconsistencies in the state of fulfilment of the questionnaire, about item non-response, exceeding stated limits etc. Check of great importance (Z) is mostly relevant check indicating the exact error and it must be always corrected. Most of the errors were directly consulted with the reporting unit by our regional offices.

**Database subsystem (DBS)** is the client-server application working in the local area network (LAN) under the ORACLE database. The results of the first data recording, e.g. source data (they are the input data in the questionnaires) are stored in several database tables on the database servers of regional offices of SO SR. After finishing the first data processing the data is sent to the central database (ORACLE) in SO SR by statistical network STATNET (type WAN). The central database executes additional checks (mainly completeness checks) and stores the data in the form of source micro data (Source database – ZBD). It is the basic database for the purposes of data analysis, data publication and the fulfilment of special user requirements.